

### **REMARKS**

Claims 1-3, 5-12, 26 and 27 are pending in the instant application. Claims 1-3 and 8-10 stand rejected. Claims 5-7, 11, 26 and 27 have been indicated to contain allowable subject matter.

Applicants wish to thank Examiner James Arnold, Jr. and Primary Examiner Walter D. Griffin for the personal interview held on June 17, 2004 with Applicants' attorney, Beverly J. Artale, Esq. During the interview, Ms. Artale pointed out that the outstanding double patenting rejection was improper since the cited prior art in combination with the claims of co-pending U.S. Patent Application No. 09/468,452 fail to teach or in any way disclose Applicants' invention.

### **DOUBLE PATENTING**

Claims 1-3, 8-10 and 12 stand provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over Claims 1, 2, 3, 10-12 and 14 of co-pending Application No. 09/144,607 in view of Morrison (GB Patent No. 2,033,358A). This rejection is respectfully traversed.

To establish a prima facie case of obviousness-type double patenting, the Examiner must identify the inventions claimed in the claims under consideration and in the patent claims, and the Examiner must establish that any variation between the inventions claimed in the claims under consideration and the earlier claims would have been obvious to a person of ordinary skill in the art. In addition, the Federal Circuit has held that the Examiner's showing of obviousness must follow the analysis used to establish a prima facie case of obviousness. See *In re Longi*, 759 F.2d 887, 225 USPQ 645, 651 (Fed. Cir. 1985). Hence, the Examiner has the initial burden to show that the *inventions claimed* are not patentably distinct and are based on a prima facie showing of obviousness. A finding by the Examiner that the claims themselves are obvious variations is legally insufficient.

Claims 1, 2, 3, 10-12 and 14 of co-pending Application No. 09/144,607 recites a method of reducing the sulfur content of a liquid catalytically cracked petroleum fraction, said method comprising catalytically cracking a sulfur-containing

petroleum feed in the presence of an equilibrium cracking catalyst and a product sulfur reduction catalyst. In accordance with the claims of co-pending Application No. 09/144,607, the product sulfur reduction catalyst comprises a porous molecular sieve having a vanadium metal component in an oxidation state greater than zero. The claims of co-pending Application 09/144,607 are silent with respect to the presence of a rare-earth metal within the pores of the molecular sieve.

To cure the deficiencies of the claims of the co-pending Application 09/144,607, the Examiner has relied upon the Morrison reference (UK Patent Application GB 2,033,538) to show that it would have been obvious to include rare earth components in the products sulfur reduction catalyst as claimed in the 09/144,607 Application. At best, the Morrison reference discloses or teaches a crystalline aluminosilicate zeolite composition having a rare earth metal **chemically incorporated within the molecular framework of the zeolite structure**. Consequently, the Morrison reference fails to teach physically incorporating at least one rare earth **in the pores of a molecular sieve** alone or in combination with a vanadium compound as required by Applicants' invention.

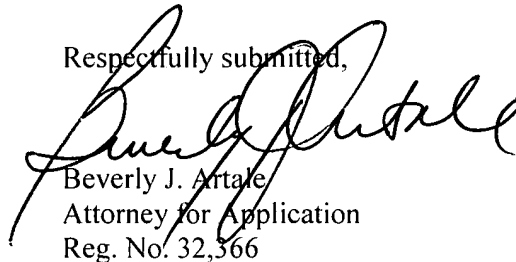
For reasons as stated hereinabove, it is believed that Applicants' invention is unobvious over the claim of co-pending Application No. 09/144,607 alone or in combination with the Morrison reference. Accordingly, this rejection is improper and should now be withdrawn.

### **OBJECTION**

Claims 5-7, 11 and 26-27 stand objected to as being dependent upon a rejected base claims but would be allowable if rewritten in independent form. However, for reasons as stated hereinabove, the subject rejection is improper and should now be withdrawn. Accordingly, Applicants hereby petition for withdrawal of the objection to Claims 5-7, 11 and 26-27.

For reasons as indicated, hereinabove, Applicants' invention as claimed is patentable over the prior art of record. Allowance of Claims 1-3, 5-12, 26 and 27 of the subject application is respectfully requested.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Beverly J. Artale", written over the typed name and title.

Beverly J. Artale  
Attorney for Application  
Reg. No. 32,366

Tel: (410) 531-4769  
W.R. Grace & Co.-Conn.  
7500 Grace Drive  
Columbia, Maryland 21044

Charge: DAV/FCC

BJA:js